### STACK SAMPLE RESULTS

#### METHOD 14 LINE 2

METER VOLUME         1134,500         CU. FT.           SQUARE ROOT OF DELTA P         0.353         SQ. ROOT IN. WATER           AVERAGE DELTA H         2.294         IN. WATER           METERED GAS TEMPERATURE         69.5         DEG. F           STATIC PRESSURE IN STACK         -0.54         IN. WATER           STACK TEMPERATURE         109.3         DEG. F           BAROMETRIC PRESSURE         29.80         IN. Hg           PROBE TIP DIAMETER         0.3655         INCHES           GAS METER CORRECTION FACTOR         0.992           TOTAL SAMPLING TIME         1395.0         MINUTES           TOTAL WATER COLLECTED         394.8         GRAMS           MOLECULAR WEIGHT         28.8         LIB/LB-MOLE           SAMPLING DUCT AREA         1.25         SQ. FT.           TOTAL PARTICULATE COLLECTED         0.0452         GRAMS           GASEOUS FLUORIDE COLLECTED         0.01428         GRAMS           AVG ALUMINUM PRODUCTION RATE         441944         LBS./DAY/LINE           MANIFOLD THERMOCOUPLE TEMPERATURE         121.7         DEG. F           AVERAGE ROOF EXIT TEMPERATURE         122.8         DEG. F           VOLUMETRIC FLOWRATE OUT ROOF         6335706         ACFM/LINE	Run Number 2	6/27/2019 -	6/28/2019	EPA Method #	5 & 14
SQUARE ROOT OF DELTA P         0.353         SQ. ROOT IN. WATER           AVERAGE DELTA H         2.294         IN. WATER           METERED GAS TEMPERATURE         69.5         DEG. F           STACK TEMPERATURE         10.93         DEG. F           STACK TEMPERATURE         10.93         DEG. F           BAROMETRIC PRESSURE         29.80         IN. Hg           PROBE TIP DIAMETER         0.3655         INCHES           GAS METER CORRECTION FACTOR         0.992           TOTAL SAMPLING TIME         1395.0         MINUTES           TOTAL WATER COLLECTED         394.8         GRAMIS           MOLECULAR WEIGHT         28.8         LB/LB-MOLE           SAMPLING DUCT AREA         1.25         SQ. FT.           TOTAL PARTICULATE COLLECTED         0.0452         GRAMIS           GASEOUS FLUORIDE COLLECTED         0.0452         GRAMIS           AVG ALUMINUM PRODUCTION RATE         41944         LBS./DAY/LINE           MANIFOLD THERMOCOUPLE TEMPERATURE         121.7         DEG. F           AVERAGE ROOF EXIT VELOCITY         99.2         FT./MIN.           AVERAGE ROOF EXIT TEMPERATURE         120.8         DEG. F           VOLUMETIC FLOWARTE IN DUCT         1410         SCFMUINE	METER VOLUME		1134.500	CU. FT.	
AVERAGE DELTA H	SQUARE ROOT OF DELTA P		0.353	SQ. ROOT IN	N. WATER
STATIC PRESSURE IN STACK         -0.54         IN. WATER           STACK TEMPERATURE         109.3         DEG. F           BAROMETRIC PRESSURE         29.80         IN. Hg           PROBE TIP DIAMETER         0.3655         INCHES           GAS METER CORRECTION FACTOR         0.992           TOTAL SAMPLING TIME         1395.0         MINUTES           TOTAL WATER COLLECTED         394.8         GRAMS           MOLECULAR WEIGHT         28.8         LB/LB-MOLE           SAMPLING DUCT AREA         1.25         SQ. FT.           TOTAL PARTICULATE COLLECTED         0.0452         GRAMS           GASEOUS FLUORIDE COLLECTED         0.0452         GRAMS           PARTICULATE FLUORIDE COLLECTED         0.00763         GRAMS           AVG ALUMINUM PRODUCTION RATE         441944         LBS/DAY/LINE           MAINFOLD ANEMOMETER VELOCITY         85.5         FT./MIN.           MANIFOLD THERMOCOUPLE TEMPERATURE         121.7         DEG. F           AVERAGE ROOF EXIT TEMPERATURE         122.7         DEG. F           VOLUMETRIC FLOWRATE OUT ROOF         6335706         ACFM/LINE           VOLUME GAS SAMPLED         1124.058         SCF           MOISTURE IN STACK GAS         1.626         %	AVERAGE DELTA H				
STACK TEMPERATURE         109.3         DEG. F           BAROMETRIC PRESSURE         29.80         IN. Hg           PROBE TIP DIAMETER         0.3655         INCHES           GAS METER CORRECTION FACTOR         0.992           TOTAL SAMPLING TIME         1395.0         MINUTES           TOTAL WATER COLLECTED         394.8         GRAMS           MOLECULAR WEIGHT         28.8         LB/LB-MOLE           SAMPLING DUCT AREA         1.25         SQ. FT.           TOTAL PARTICULATE COLLECTED         0.0452         GRAMS           GASEOUS FLUORIDE COLLECTED         0.00763         GRAMS           AVERAGIUATE FLUORIDE COLLECTED         0.00763         GRAMS           AVG ALUMINUM PRODUCTION RATE         441944         LBS/DAY/LINE           MANIFOLD ANEMOMETER VELOCITY         85.5         FT./MIN.           MANIFOLD THERMOCOUPLE TEMPERATURE         121.7         DEG. F           VELAGE ROOF EXIT VELOCITY         99.2         FT./MIN.           AVERAGE ROOF EXIT TEMPERATURE         120.8         DEG. F           VOLUME GAS SAMPLED         1124.058         SCF           WOLUMETRIC FLOWRATE OUT ROOF         6335706         ACFM/LINE           VOLUMETRIC FLOWRATE IN DUCT         141.0         SCFM	METERED GAS TEMPERATURE		69.5	DEG. F	
BAROMETRIC PRESSURE PROBE TIP DIAMETER QAS METER CORRECTION FACTOR TOTAL SAMPLING TIME TOTAL WATER COLLECTED 394.8 GRAMS MOLECULAR WEIGHT SAMPLING DUCT AREA TOTAL PARTICULATE COLLECTED 394.8 GRAMS MOLECULAR WEIGHT 28.8 LB/LB-MOLE SAMPLING DUCT AREA TOTAL PARTICULATE COLLECTED QASEOUS FLUORIDE COLLECTED PARTICULATE FLUORIDE COLLECTED AVGRAGE ROOF EXIT VELOCITY MANIFOLD ANEMOMETER VELOCITY MANIFOLD ANEMOMETER VELOCITY AVERAGE ROOF EXIT TEMPERATURE VOLUMETRIC FLOWRATE OUT ROOF VOLUME GAS SAMPLED MOISTURE IN STACK GAS VELOCITY OF STACK GAS (ACTUAL) VOLUMETRIC FLOWRATE IN DUCT PERCENT ISOKINETIC - TRAIN TO DUCT PERCENT ISOKINETIC - TRAIN TO DUCT PERCENT ISOKINETIC - MANIFOLD TO ROOF SECONDARY PARTICULATE EMISSION SECONDARY PARTICULATE EMISSION PRIMARY PARTICULATE EMISSION PRIMARY PARTICULATE EMISSION PRIMARY PARTICULATE EMISSION PARTICULATE FLUORIDE CONCENTRATION QASEOUS FLUORIDE CONCENTRATION PRIMARY PARTICULATE EMISSION PARTICULATE FLUORIDE CONCENTRATION PRIMARY PARTICULATE EMISSION PARTICULATE FLUORIDE CONCENTRATION PARTICULATE FLU	STATIC PRESSURE IN STACK		-0.54	IN. WATER	
PROBE TIP DIAMETER         0.3655         INCHES           GAS METER CORRECTION FACTOR         0.992           TOTAL SAMPLING TIME         1395.0         MINUTES           TOTAL WATER COLLECTED         394.8         GRAMS           MOLECULAR WEIGHT         28.8         LB/LB-MOLE           SAMPLING DUCT AREA         1.25         SQ. FT.           TOTAL PARTICULATE COLLECTED         0.0452         GRAMS           GASEOUS FLUORIDE COLLECTED         0.00763         GRAMS           PARTICULATE FLUORIDE COLLECTED         0.00763         GRAMS           AVG ALUMINUM PRODUCTION RATE         441944         LBS./DAY/LINE           MANIFOLD ANEMOMETER VELOCITY         85.5         FT./MIN.           MANIFOLD THERMOCOUPLE TEMPERATURE         121.7         DEG. F           AVERAGE ROOF EXIT VELOCITY         99.2         FT./MIN.           AVERAGE ROOF EXIT TEMPERATURE         120.8         DEG. F           VOLUMETRIC FLOWRATE OUT ROOF         6335706         ACFM/LINE           VOLUME GAS SAMPLED         1124.058         SCF           MOISTURE IN STACK GAS (ACTUAL)         1243         FT./MIN.           VOLUMETRIC FLOWRATE OUT ROOF         5643316         SCFM/LINE           PERCENT ISOKINETIC - MANIFOLD TO ROOF         56	STACK TEMPERATURE		109.3	DEG. F	
GAS METER CORRECTION FACTOR         0.992           TOTAL SAMPLING TIME         1395.0           MINUTES         394.8           GRAMS         GRAMS           MOLECULAR WEIGHT         28.8         LB/LB-MOLE           SAMPLING DUCT AREA         1.25         SQ. FT.           TOTAL PARTICULATE COLLECTED         0.0452         GRAMS           GASEOUS FLUORIDE COLLECTED         0.00763         GRAMS           PARTICULATE FLUORIDE COLLECTED         0.00763         GRAMS           AVG ALUMINUM PRODUCTION RATE         441944         LBS./DAY/LINE           MANIFOLD ANEMOMETER VELOCITY         85.5         FT./MIN.           MANIFOLD THERMOCOUPLE TEMPERATURE         1221.7         DEG. F           AVERAGE ROOF EXIT VELOCITY         99.2         FT./MIN.           AVERAGE ROOF EXIT VEMPERATURE         120.8         DEG. F           VOLUMETRIC FLOWRATE OUT ROOF         6335706         ACFM/LINE           VOLUME GAS SAMPLED         1124.058         SCF           MOISTURE IN STACK GAS         1.626         %           VELOCITY OF STACK GAS (ACTUAL)         1243         FT./MIN.           VOLUMETRIC FLOWRATE IN DUCT         98.05         %           VELOCITY OF STACK GAS (ACTUAL)         1243         <	5.7 (CAS) (C		29.80	IN. Hg	
TOTAL SAMPLING TIME         1395.0         MINUTES           TOTAL WATER COLLECTED         394.8         GRAMS           MOLECULAR WEIGHT         28.8         LB/LB-MOLE           SAMPLING DUCT AREA         1.25         SQ. FT.           TOTAL PARTICULATE COLLECTED         0.0452         GRAMS           GASEOUS FLUORIDE COLLECTED         0.00763         GRAMS           PARTICULATE FLUORIDE COLLECTED         0.00763         GRAMS           AVG ALUMINUM PRODUCTION RATE         441944         LBS./DAY/LINE           MANIFOLD ANEMOMETER VELOCITY         85.5         FT./MIN.           MANIFOLD THERMOCOUPLE TEMPERATURE         121.7         DEG. F           AVERAGE ROOF EXIT VELOCITY         99.2         FT./MIN.           AVERAGE ROOF EXIT TEMPERATURE         120.8         DEG. F           VOLUMETRIC FLOWRATE OUT ROOF         6335706         ACFM/LINE           VOLUME GAS SAMPLED         1124.058         SCF           MOISTURE IN STACK GAS         1.626         %           VELOCITY OF STACK GAS (ACTUAL)         1243         FT./MIN.           VOLUMETRIC FLOWRATE IN DUCT         98.05         %           VOLUMETRIC FLOWRATE OUT ROOF         5643316         SCFM/LINE           PERCENT ISOKINETIC - MANIFOLD TO ROOF <td></td> <td></td> <td>0.3655</td> <td>INCHES</td> <td></td>			0.3655	INCHES	
TOTAL WATER COLLECTED         394.8         GRAMS           MOLECULAR WEIGHT         28.8         LB/LB-MOLE           SAMPLING DUCT AREA         1.25         SQ. FT.           TOTAL PARTICULATE COLLECTED         0.0452         GRAMS           GASEOUS FLUORIDE COLLECTED         0.00763         GRAMS           AVG ALUMINUM PRODUCTION RATE         441944         LBS./DAY/LINE           MANIFOLD ANEMOMETER VELOCITY         85.5         FT./MIN.           MANIFOLD THERMOCOUPLE TEMPERATURE         121.7         DEG. F           AVERAGE ROOF EXIT TEMPERATURE         120.8         DEG. F           VOLUMETRIC FLOWRATE OUT ROOF         6335706         ACFM/LINE           VOLUMETRIC FLOWRATE OUT ROOF         6335706         ACFM/LINE           VOLUMETRIC FLOWRATE IN DUCT         1124.058         SCF           MOISTURE IN STACK GAS         1.626         %           VELOCITY OF STACK GAS (ACTUAL)         1243         FT./MIN.           VOLUMETRIC FLOWRATE IN DUCT         98.05         %           VOLUMETRIC FLOWRATE OUT ROOF         5643316         SCFM/LINE           PERCENT ISOKINETIC - TRAIN TO DUCT         98.05         %           VOLUMETRIC FLOWRATE OUT ROOF         5643316         SCFM/LINE           SECONDARY PARTIC	1200 March 1990 1990 March 1990 M	OR	0.992		
MOLECULAR WEIGHT         28.8         LB/LB-MOLE           SAMPLING DUCT AREA         1.25         SQ. FT.           TOTAL PARTICULATE COLLECTED         0.0452         GRAMS           GASEOUS FLUORIDE COLLECTED         0.01428         GRAMS           PARTICULATE FLUORIDE COLLECTED         0.00763         GRAMS           AVG ALUMINUM PRODUCTION RATE         441944         LBS./DAY/LINE           MANIFOLD ANEMOMETER VELOCITY         85.5         FT./MIN.           MANIFOLD THERMOCOUPLE TEMPERATURE         121.7         DEG. F           AVERAGE ROOF EXIT VELOCITY         99.2         FT./MIN.           AVERAGE ROOF EXIT TEMPERATURE         120.8         DEG. F           VOLUMETRIC FLOWRATE OUT ROOF         6335706         ACFM/LINE           VOLUME GAS SAMPLED         1124.058         SCF           MOISTURE IN STACK GAS         1.626         %           VELOCITY OF STACK GAS (ACTUAL)         1243         FT./MIN.           VOLUMETRIC FLOWRATE IN DUCT         1410         SCFM           VOLUMETRIC FLOWRATE OUT ROOF         5643316         SCFM/LINE           PERCENT ISOKINETIC - MANIFOLD TO ROOF         131.15         %           SECONDARY PARTICULATE CONCENTRATION         0.00066         GRAMINS/SCF           SECON			1395.0		
SAMPLING DUCT AREA   1.25   SQ. FT.	F 25 125 125 125 125 125 125 125 125 125		394.8	GRAMS	
TOTAL PARTICULATE COLLECTED         0.0452         GRAMS           GASEOUS FLUORIDE COLLECTED         0.01428         GRAMS           PARTICULATE FLUORIDE COLLECTED         0.00763         GRAMS           AVG ALUMINUM PRODUCTION RATE         441944         LBS./DAY/LINE           MANIFOLD ANEMOMETER VELOCITY         85.5         FT./MIN.           MANIFOLD THERMOCOUPLE TEMPERATURE         121.7         DEG. F           AVERAGE ROOF EXIT TEMPERATURE         120.8         DEG. F           VOLUMETRIC FLOWRATE OUT ROOF         6335706         ACFM/LINE           VOLUMETRIC FLOWRATE OUT ROOF         6335706         ACFM/LINE           VELOCITY OF STACK GAS (ACTUAL)         1243         FT./MIN.           VOLUMETRIC FLOWRATE IN DUCT         1410         SCFM           VOLUMETRIC FLOWRATE OUT ROOF         5643316         SCFM/LINE           PERCENT ISOKINETIC - TRAIN TO DUCT         98.05         %           VOLUMETRIC FLOWRATE OUT ROOF         5643316         SCFM/LINE           PERCENT ISOKINETIC - MANIFOLD TO ROOF         131.15         %           SECONDARY PARTICULATE CONCENTRATION         0.0015         GRAMS/SCM           SECONDARY PARTICULATE EMISSION         31.69         LBS./HR.           SECONDARY PARTICULATE EMISSION         3.44			28.8	LB/LB-MOLE	
GASEOUS FLUORIDE COLLECTED         0.01428         GRAMS           PARTICULATE FLUORIDE COLLECTED         0.00763         GRAMS           AVG ALUMINUM PRODUCTION RATE         441944         LBS./DAY/LINE           MANIFOLD ANEMOMETER VELOCITY         85.5         FT./MIN.           MANIFOLD THERMOCOUPLE TEMPERATURE         121.7         DEG. F           AVERAGE ROOF EXIT VELOCITY         99.2         FT./MIN.           AVERAGE ROOF EXIT TEMPERATURE         120.8         DEG. F           VOLUMETRIC FLOWRATE OUT ROOF         6335706         ACFM/LINE           VOLUMETRIC FLOWRATE OUT ROOF         6335706         ACFM/LINE           VOLUMETRIC FLOWRATE IN DUCT         1243         FT./MIN.           VOLUMETRIC FLOWRATE IN DUCT         98.05         %           VOLUMETRIC FLOWRATE OUT ROOF         5643316         SCFM/LINE           PERCENT ISOKINETIC - MANIFOLD TO ROOF         131.15         %           SECONDARY PARTICULATE CONCENTRATION         0.0015         GRAMS/SCM           SECONDARY PARTICULATE EMISSION         31.69         LBS./HR.           SECONDARY PARTICULATE EMISSION         3.44         LBS./TON           PRIMARY PARTICULATE EMISSION         3.94         LBS./TON           PRIMARY PARTICULATE EMISSION         0.00207 <td< td=""><td></td><td></td><td>1.25</td><td>SQ. FT.</td><td></td></td<>			1.25	SQ. FT.	
PARTICULATE FLUORIDE COLLECTED         0.00763         GRAMS           AVG ALUMINUM PRODUCTION RATE         441944         LBS./DAY/LINE           MANIFOLD ANEMOMETER VELOCITY         85.5         FT./MIN.           MANIFOLD THERMOCOUPLE TEMPERATURE         121.7         DEG. F           AVERAGE ROOF EXIT VELOCITY         99.2         FT./MIN.           AVERAGE ROOF EXIT TEMPERATURE         120.8         DEG. F           VOLUMETRIC FLOWRATE OUT ROOF         6335706         ACFM/LINE           VOLUME GAS SAMPLED         1124.058         SCF           MOISTURE IN STACK GAS         1.626         %           VELOCITY OF STACK GAS (ACTUAL)         1243         FT./MIN.           VOLUMETRIC FLOWRATE IN DUCT         1410         SCFM           PERCENT ISOKINETIC - TRAIN TO DUCT         98.05         %           VOLUMETRIC FLOWRATE OUT ROOF         5643316         SCFM/LINE           PERCENT ISOKINETIC - MANIFOLD TO ROOF         131.15         %           SECONDARY PARTICULATE CONCENTRATION         0.0015         GRAMS/SCM           SECONDARY PARTICULATE EMISSION         31.69         LBS./HR.           SECONDARY PARTICULATE EMISSION         3.44         LBS./TON           PRIMARY AND SECONDARY PARTICULATE EMITTED         7.43         LBS./TON </td <td>The same state of the same sta</td> <td></td> <td>0.0452</td> <td>GRAMS</td> <td></td>	The same state of the same sta		0.0452	GRAMS	
AVG ALUMINUM PRODUCTION RATE  MANIFOLD ANEMOMETER VELOCITY  MANIFOLD THERMOCOUPLE TEMPERATURE  AVERAGE ROOF EXIT VELOCITY  AVERAGE ROOF EXIT TEMPERATURE  VOLUMETRIC FLOWRATE OUT ROOF  VOLUME GAS SAMPLED  MOISTURE IN STACK GAS  VELOCITY OF STACK GAS (ACTUAL)  VOLUMETRIC FLOWRATE IN DUCT  PERCENT ISOKINETIC - TRAIN TO DUCT  VOLUMETRIC FLOWRATE OUT ROOF  VOLUMETRIC FLOWRATE IN DUCT  PERCENT ISOKINETIC - MANIFOLD TO ROOF  SECONDARY PARTICULATE CONCENTRATION  SECONDARY PARTICULATE EMISSION  SECONDARY PARTICULATE EMISSION  PRIMARY AND SECONDARY PARTICULATE EMITTED  GASEOUS FLUORIDE CONCENTRATION  O.000207  PARTICULATE FLUORIDE CONCENTRATION  O.000207  GRAINS/SCF  PARTICULATE FLUORIDE CONCENTRATION  O.000207  GRAINS/SCF  O.727  MG/SCM  O.727  MG/SCM  TOTAL FLUORIDE CONCENTRATION  O.000318  GRAINS/SCF  TOTAL FLUORIDE EMISSION  15.361  LBS./HR./LINE  TOTAL SECONDARY FLUORIDE EMITTED  1.668  LBS./TON  TOTAL PRIMARY FLUORIDE EMITTED  1.668  LBS./TON			0.01428	GRAMS	
MANIFOLD ANEMOMETER VELOCITY         85.5         FT./MIN.           MANIFOLD THERMOCOUPLE TEMPERATURE         121.7         DEG. F           AVERAGE ROOF EXIT VELOCITY         99.2         FT./MIN.           AVERAGE ROOF EXIT TEMPERATURE         120.8         BCG. F           VOLUMETRIC FLOWRATE OUT ROOF         6335706         ACFM/LINE           VOLUME GAS SAMPLED         1124.058         SCF           MOISTURE IN STACK GAS         1.626         %           VELOCITY OF STACK GAS (ACTUAL)         1243         FT./MIN.           VOLUMETRIC FLOWRATE IN DUCT         1410         SCFM           PERCENT ISOKINETIC - TRAIN TO DUCT         98.05         %           VOLUMETRIC FLOWRATE OUT ROOF         5643316         SCFM/LINE           PERCENT ISOKINETIC - MANIFOLD TO ROOF         131.15         %           SECONDARY PARTICULATE CONCENTRATION         0.00066         GRAMS/SCM           SECONDARY PARTICULATE EMISSION         31.69         LBS./HR.           SECONDARY PARTICULATE EMISSION         3.44         LBS./TON           PRIMARY AND SECONDARY PARTICULATE EMITTED         7.43         LBS./TON           GASEOUS FLUORIDE CONCENTRATION         0.000207         GRAINS/SCF           GASEOUS FLUORIDE CONCENTRATION         0.000207         GRAI	ALTONIO CONTROL CONTRO		0.00763	GRAMS	
MANIFOLD THERMOCOUPLE TEMPERATURE AVERAGE ROOF EXIT VELOCITY AVERAGE ROOF EXIT TEMPERATURE 120.8 DEG. F VOLUMETRIC FLOWRATE OUT ROOF 6335706 ACFM/LINE VOLUME GAS SAMPLED MOISTURE IN STACK GAS 1.626 % VELOCITY OF STACK GAS (ACTUAL) VOLUMETRIC FLOWRATE IN DUCT PERCENT ISOKINETIC - TRAIN TO DUCT VOLUMETRIC FLOWRATE OUT ROOF PERCENT ISOKINETIC - MANIFOLD TO ROOF SECONDARY PARTICULATE CONCENTRATION SECONDARY PARTICULATE CONCENTRATION SECONDARY PARTICULATE EMISSION SECONDARY PARTICULATE EMISSION SECONDARY PARTICULATE EMISSION SECONDARY PARTICULATE EMISSION PRIMARY PARTICULATE EMISSION PRIMARY PARTICULATE EMISSION PRIMARY PARTICULATE EMISSION OASSOUS FLUORIDE CONCENTRATION OASSOUS FLUORIDE EMISSION OASSOUS FLUORIDE EMITTED OASSOUS FLUORID			441944	LBS./DAY/LIN	١E
AVERAGE ROOF EXIT VELOCITY  AVERAGE ROOF EXIT TEMPERATURE  VOLUMETRIC FLOWRATE OUT ROOF  VOLUME GAS SAMPLED  MOISTURE IN STACK GAS  VELOCITY OF STACK GAS (ACTUAL)  VOLUMETRIC FLOWRATE IN DUCT  PERCENT ISOKINETIC - TRAIN TO DUCT  PERCENT ISOKINETIC - MANIFOLD TO ROOF  SECONDARY PARTICULATE CONCENTRATION  SECONDARY PARTICULATE EMISSION  SECONDARY PARTICULATE EMISSION  PRIMARY AND SECONDARY PARTICULATE EMISTION  GASEOUS FLUORIDE CONCENTRATION  OLOTO  GASEOUS FLUORIDE CONCENTRATION  PARTICULATE FLUORIDE CONCENTRATION  GASEOUS FLUORIDE CONCENTRATION  OLOTO  OLOTO  GRAINS/SCF  TOTAL FLUORIDE CONCENTRATION  OLOTO  TOTAL FLUORIDE CONCENTRATION  OLO	PER ANNUAL CONTROL OF THE PER AND		85.5	FT./MIN.	
AVERAGE ROOF EXIT TEMPERATURE  VOLUMETRIC FLOWRATE OUT ROOF  VOLUME GAS SAMPLED  MOISTURE IN STACK GAS  VELOCITY OF STACK GAS (ACTUAL)  VOLUMETRIC FLOWRATE IN DUCT  PERCENT ISOKINETIC - TRAIN TO DUCT  VOLUMETRIC FLOWRATE OUT ROOF  VOLUMETRIC FLOWRATE OUT ROOF  PERCENT ISOKINETIC - TRAIN TO DUCT  VOLUMETRIC FLOWRATE OUT ROOF  PERCENT ISOKINETIC - MANIFOLD TO ROOF  SECONDARY PARTICULATE CONCENTRATION  SECONDARY PARTICULATE CONCENTRATION  SECONDARY PARTICULATE EMISSION  PRIMARY PARTICULATE EMISSION  REMARY PARTICULATE EMISSION  PRIMARY AND SECONDARY PARTICULATE EMITTED  GASEOUS FLUORIDE CONCENTRATION  GASEOUS FLUORIDE CONCENTRATION  GASEOUS FLUORIDE CONCENTRATION  GASEOUS FLUORIDE CONCENTRATION  DOUCTO  GRAINS/SCF  PARTICULATE FLUORIDE CONCENTRATION  DOUCTO  GRAINS/SCF  PARTICULATE FLUORIDE CONCENTRATION  DOUCTO  GRAINS/SCF  TOTAL FLUORIDE CONCENTRATION  DOUCTO  TOTAL FLUORIDE EMISSION  15.361  LBS./HR./LINE  TON/HR./LINE  TOTAL SECONDARY FLUORIDE EMITTED  1.668  LBS./TON  TOTAL PRIMARY FLUORIDE EMITTED  DOUCTO		1PERATURE	121.7		
VOLUMETRIC FLOWRATE OUT ROOF         6335706         ACFM/LINE           VOLUME GAS SAMPLED         1124.058         SCF           MOISTURE IN STACK GAS         1.626         %           VELOCITY OF STACK GAS (ACTUAL)         1243         FT./MIN.           VOLUMETRIC FLOWRATE IN DUCT         1410         SCFM           PERCENT ISOKINETIC - TRAIN TO DUCT         98.05         %           VOLUMETRIC FLOWRATE OUT ROOF         5643316         SCFM/LINE           PERCENT ISOKINETIC - MANIFOLD TO ROOF         131.15         %           SECONDARY PARTICULATE CONCENTRATION         0.0015         GRAMS/SCM           SECONDARY PARTICULATE EMISSION         31.69         LBS./HR.           SECONDARY PARTICULATE EMISSION         31.44         LBS./TON           PRIMARY PARTICULATE EMISSION         3.99         LBS./TON           PRIMARY AND SECONDARY PARTICULATE EMITTED         7.43         LBS./TON           GASEOUS FLUORIDE CONCENTRATION         0.000207         GRAINS/SCF           PARTICULATE FLUORIDE CONCENTRATION         0.253         MG./SCM           GASEOUS FLUORIDE CONCENTRATION         0.00011         GRAINS/SCF           TOTAL FLUORIDE CONCENTRATION         0.00011         GRAINS/SCF           TOTAL FLUORIDE CONCENTRATION         0.000318	A THE MATERIAL PROPERTY OF THE		99.2	FT./MIN.	
VOLUME GAS SAMPLED  MOISTURE IN STACK GAS  VELOCITY OF STACK GAS (ACTUAL)  VOLUMETRIC FLOWRATE IN DUCT  PERCENT ISOKINETIC - TRAIN TO DUCT  VOLUMETRIC FLOWRATE OUT ROOF  PERCENT ISOKINETIC - MANIFOLD TO ROOF  SECONDARY PARTICULATE CONCENTRATION  SECONDARY PARTICULATE CONCENTRATION  SECONDARY PARTICULATE EMISSION  SECONDARY PARTICULATE EMISSION  PRIMARY PARTICULATE EMISSION  PRIMARY PARTICULATE EMISSION  PRIMARY AND SECONDARY PARTICULATE EMISSION  PRIMARY AND SECONDARY PARTICULATE EMITTED  GASEOUS FLUORIDE CONCENTRATION  TOTAL FLUORIDE CONCENTRATION  AVG. ALUMINUM PRODUCTION RATE  TOTAL SECONDARY FLUORIDE EMITTED  TOTAL SECONDARY FLUORIDE EMITTED  TOTAL SECONDARY FLUORIDE EMITTED  TOTAL PRIMARY FLUORIDE EMITTED			120.8		
MOISTURE IN STACK GAS  VELOCITY OF STACK GAS (ACTUAL)  VOLUMETRIC FLOWRATE IN DUCT  PERCENT ISOKINETIC - TRAIN TO DUCT  VOLUMETRIC FLOWRATE OUT ROOF  PERCENT ISOKINETIC - MANIFOLD TO ROOF  SECONDARY PARTICULATE CONCENTRATION  SECONDARY PARTICULATE CONCENTRATION  SECONDARY PARTICULATE EMISSION  SECONDARY PARTICULATE EMISSION  SECONDARY PARTICULATE EMISSION  PRIMARY PARTICULATE EMISSION  PRIMARY PARTICULATE EMISSION  PRIMARY PARTICULATE EMISSION  PRIMARY AND SECONDARY PARTICULATE EMITTED  GASEOUS FLUORIDE CONCENTRATION  GASEOUS FLUORIDE CONCENTRATION  GASEOUS FLUORIDE CONCENTRATION  PARTICULATE FLUORIDE CONCENTRATION  PARTICULATE FLUORIDE CONCENTRATION  O.000207  PARTICULATE FLUORIDE CONCENTRATION  O.000111  GRAINS/SCF  TOTAL FLUORIDE CONCENTRATION  O.727  MG/SCM  TOTAL FLUORIDE CONCENTRATION  O.000318  GRAINS/SCF  TOTAL FLUORIDE EMISSION  15.361  LBS./HR./LINE  TOTAL SECONDARY FLUORIDE EMITTED  1.668  LBS./TON  TOTAL PRIMARY FLUORIDE EMITTED  O.458  LBS./TON	AT THE PERSON OF	OOF	6335706	ACFM/LINE	
VELOCITY OF STACK GAS (ACTUAL)  VOLUMETRIC FLOWRATE IN DUCT PERCENT ISOKINETIC - TRAIN TO DUCT  VOLUMETRIC FLOWRATE OUT ROOF PERCENT ISOKINETIC - MANIFOLD TO ROOF SECONDARY PARTICULATE CONCENTRATION SECONDARY PARTICULATE CONCENTRATION SECONDARY PARTICULATE EMISSION SECONDARY PARTICULATE EMITTED T.43 SECONDARY PARTICULATE EMITTED T.43 SECONDARY PARTICULATE EMITTED T.43 SECONDARY PARTICULATE EMITTED T.43 SECONDARY MG./SCM GASEOUS FLUORIDE CONCENTRATION SECONDARY MG./SCM GASEOUS FLUORIDE CONCENTRATION TOTAL FLUORIDE EMISSION TOTAL SECONDARY FLUORIDE EMITTED SCHOOL SCHOO			1124.058	SCF	
VOLUMETRIC FLOWRATE IN DUCT PERCENT ISOKINETIC - TRAIN TO DUCT 98.05 %  VOLUMETRIC FLOWRATE OUT ROOF FERCENT ISOKINETIC - MANIFOLD TO ROOF SECONDARY PARTICULATE CONCENTRATION SECONDARY PARTICULATE CONCENTRATION SECONDARY PARTICULATE EMISSION PRIMARY PARTICULATE EMISSION PRIMARY AND SECONDARY PARTICULATE EMITTED SASEOUS FLUORIDE CONCENTRATION GASEOUS FLUORIDE CONCENTRATION GASEOUS FLUORIDE CONCENTRATION SASEOUS FLUORIDE CONCENTRATION SASSOUS SASSOU	Fig. 1. Strategies and september 1901 in the 1901 of the 1901 per property of the 1901 per				
PERCENT ISOKINETIC - TRAIN TO DUCT  VOLUMETRIC FLOWRATE OUT ROOF  PERCENT ISOKINETIC - MANIFOLD TO ROOF  SECONDARY PARTICULATE CONCENTRATION  SECONDARY PARTICULATE CONCENTRATION  SECONDARY PARTICULATE EMISSION  SECONDARY PARTICULATE EMISSION  SECONDARY PARTICULATE EMISSION  SECONDARY PARTICULATE EMISSION  PRIMARY PARTICULATE EMISSION  PRIMARY PARTICULATE EMISSION  PRIMARY AND SECONDARY PARTICULATE EMITTED  GASEOUS FLUORIDE CONCENTRATION  GASEOUS FLUORIDE CONCENTRATION  GASEOUS FLUORIDE CONCENTRATION  GASEOUS FLUORIDE CONCENTRATION  PARTICULATE FLUORIDE CONCENTRATION  PARTICULATE FLUORIDE CONCENTRATION  PARTICULATE FLUORIDE CONCENTRATION  TOTAL FLUORIDE CONCENTRATION  TOTAL FLUORIDE CONCENTRATION  TOTAL FLUORIDE CONCENTRATION  TOTAL FLUORIDE EMISSION  AVG. ALUMINUM PRODUCTION RATE  TOTAL SECONDARY FLUORIDE EMITTED  TOTAL PRIMARY FLUORIDE EMITTED	,	,			
VOLUMETRIC FLOWRATE OUT ROOF PERCENT ISOKINETIC - MANIFOLD TO ROOF SECONDARY PARTICULATE CONCENTRATION SECONDARY PARTICULATE CONCENTRATION SECONDARY PARTICULATE EMISSION PRIMARY PARTICULATE EMISSION PRIMARY AND SECONDARY PARTICULATE EMITTED T.43 LBS./TON GASEOUS FLUORIDE CONCENTRATION GASEOUS FLUORIDE CONCENTRATION GASEOUS FLUORIDE CONCENTRATION D.253 MG./SCM PARTICULATE FLUORIDE CONCENTRATION D.253 MG./SCM PARTICULATE FLUORIDE CONCENTRATION TOTAL FLUORIDE CONCENTRATION D.727 MG./SCM TOTAL FLUORIDE CONCENTRATION D.727 MG./SCM TOTAL FLUORIDE CONCENTRATION D.000318 GRAINS/SCF TOTAL FLUORIDE EMISSION TOTAL FLUORIDE EMISSION TOTAL SECONDARY FLUORIDE EMITTED D.458 LBS./TON TOTAL PRIMARY FLUORIDE EMITTED D.458 LBS./TON					
PERCENT ISOKINETIC - MANIFOLD TO ROOF  SECONDARY PARTICULATE CONCENTRATION SECONDARY PARTICULATE CONCENTRATION SECONDARY PARTICULATE CONCENTRATION SECONDARY PARTICULATE EMISSION SECONDARY PARTICULATE EMITTED T.43 SECONDARY PARTICULATE EMITTED T.44 SECONDARY PARTICULATE EMITTED T.45 SECONDARY PARTICULATE EMITTED T.46 SECONDARY FLUORIDE CONCENTRATION TOTAL FLUORIDE CONCENTRATION TOTAL FLUORIDE CONCENTRATION TOTAL FLUORIDE EMISSION TOTAL FLUORIDE EMISSION TOTAL FLUORIDE EMISSION TOTAL SECONDARY FLUORIDE EMITTED TOTAL PRIMARY FLUORIDE EMITTED	The second secon				
SECONDARY PARTICULATE CONCENTRATION SECONDARY PARTICULATE CONCENTRATION SECONDARY PARTICULATE EMISSION SECONDARY PARTICULATE EMITTED T.43 SES./TON SASEOUS FLUORIDE CONCENTRATION SECONDARY PARTICULATE EMITTED T.43 SES./TON SECONDARY PARTICULATE EMITTED T.43 SES./TON SECONDARY PARTICULATE EMITTED T.44 SES./TON SECONDARY FLUORIDE CONCENTRATION TOTAL FLUORIDE EMISSION TOTAL FLUORIDE EMISSION TOTAL FLUORIDE EMISSION TOTAL SECONDARY FLUORIDE EMITTED TOTAL PRIMARY FLUORIDE EMITTED					
SECONDARY PARTICULATE CONCENTRATION SECONDARY PARTICULATE EMISSION SECONDARY PARTICULATE EMITTED T.43 SES./TON SES.OUS FLUORIDE CONCENTRATION GASEOUS FLUORIDE CONCENTRATION GASEOUS FLUORIDE CONCENTRATION SECONDARY PARTICULATE FLUORIDE CONCENTRATION SECONDARY FLUORIDE CONCENTRATION SECONDARY FLUORIDE CONCENTRATION SECONDARY FLUORIDE EMITTED SECOND				%	
SECONDARY PARTICULATE EMISSION SECONDARY PARTICULATE EMISSION PRIMARY PARTICULATE EMISSION PRIMARY AND SECONDARY PARTICULATE EMITTED T.43 LBS./TON GASEOUS FLUORIDE CONCENTRATION GASEOUS FLUORIDE CONCENTRATION GASEOUS FLUORIDE CONCENTRATION FARTICULATE FLUORIDE CONCENTRATION PARTICULATE FLUORIDE CONCENTRATION PARTICULATE FLUORIDE CONCENTRATION TOTAL FLUORIDE EMISSION TOTAL FLUORIDE EMISSION TOTAL FLUORIDE EMISSION TOTAL SECONDARY FLUORIDE EMITTED TOTAL PRIMARY FLUORIDE EMITTED					
SECONDARY PARTICULATE EMISSION PRIMARY PARTICULATE EMISSION PRIMARY AND SECONDARY PARTICULATE EMITTED T.43 LBS./TON GASEOUS FLUORIDE CONCENTRATION GASEOUS FLUORIDE CONCENTRATION GASEOUS FLUORIDE CONCENTRATION FARTICULATE FLUORIDE CONCENTRATION FARTICULATE FLUORIDE CONCENTRATION FOR ARTICULATE FLUORIDE EMISSION FOR ARTICULATE FLUORIDE EMISSION FOR ARTICULATE FLUORIDE EMITTED FOR ARTICULATE FLUORIDE EMITTED FOR ARTICULATE EMISSION					
PRIMARY PARTICULATE EMISSION PRIMARY AND SECONDARY PARTICULATE EMITTED 7.43 LBS./TON GASEOUS FLUORIDE CONCENTRATION GASEOUS FLUORIDE CONCENTRATION FARTICULATE FLUORIDE CONCENTRATION PARTICULATE FLUORIDE CONCENTRATION PARTICULATE FLUORIDE CONCENTRATION FOR TOTAL FLUORIDE CONCENTRATION TOTAL FLUORIDE CONCENTRATION TOTAL FLUORIDE CONCENTRATION TOTAL FLUORIDE CONCENTRATION TOTAL FLUORIDE EMISSION TOTAL FLUORIDE EMISSION AVG. ALUMINUM PRODUCTION RATE TOTAL SECONDARY FLUORIDE EMITTED 1.668 LBS./TON TOTAL PRIMARY FLUORIDE EMITTED 0.458 LBS./TON	The state of the s				
PRIMARY AND SECONDARY PARTICULATE EMITTED  GASEOUS FLUORIDE CONCENTRATION  GASEOUS FLUORIDE CONCENTRATION  GASEOUS FLUORIDE CONCENTRATION  PARTICULATE FLUORIDE CONCENTRATION  PARTICULATE FLUORIDE CONCENTRATION  TOTAL FLUORIDE EMISSION  AVG. ALUMINUM PRODUCTION RATE  TOTAL SECONDARY FLUORIDE EMITTED  TOTAL PRIMARY FLUORIDE EMITTED			3.44	LBS./TON	
GASEOUS FLUORIDE CONCENTRATION  GASEOUS FLUORIDE CONCENTRATION  PARTICULATE FLUORIDE CONCENTRATION  PARTICULATE FLUORIDE CONCENTRATION  PARTICULATE FLUORIDE CONCENTRATION  TOTAL FLUORIDE EMISSION  TOTAL FLUORIDE EMISSION  AVG. ALUMINUM PRODUCTION RATE  TOTAL SECONDARY FLUORIDE EMITTED  TOTAL PRIMARY FLUORIDE EMITTED  1.668  1.5361  1.668		107		LBS./TON	
GASEOUS FLUORIDE CONCENTRATION  PARTICULATE FLUORIDE CONCENTRATION  PARTICULATE FLUORIDE CONCENTRATION  PARTICULATE FLUORIDE CONCENTRATION  TOTAL FLUORIDE CONCENTRATION  TOTAL FLUORIDE CONCENTRATION  TOTAL FLUORIDE CONCENTRATION  TOTAL FLUORIDE EMISSION  TOTAL FLUORIDE EMISSION  AVG. ALUMINUM PRODUCTION RATE  TOTAL SECONDARY FLUORIDE EMITTED  TOTAL PRIMARY FLUORIDE EMITTED  0.000207  GRAINS/SCF  0.000211  GRAINS/SCF  1.000.253  MG./SCM  0.000318  GRAINS/SCF  1.361  1.361  1.361  1.361  1.3668  1.3	PRIMARY AND SECONDARY PART	TICULATE EMITTED	7.43	LBS./TON	
PARTICULATE FLUORIDE CONCENTRATION  PARTICULATE FLUORIDE CONCENTRATION  TOTAL FLUORIDE CONCENTRATION  TOTAL FLUORIDE CONCENTRATION  TOTAL FLUORIDE CONCENTRATION  TOTAL FLUORIDE EMISSION  TOTAL FLUORIDE EMISSION  AVG. ALUMINUM PRODUCTION RATE  TOTAL SECONDARY FLUORIDE EMITTED  TOTAL PRIMARY FLUORIDE EMITTED  1.668  UMB./SCM  0.000111  GRAINS/SCF  0.000318  GRAINS/SCF  15.361  LBS./HR./LINE  1.668  LBS./TON  TOTAL PRIMARY FLUORIDE EMITTED  0.458  LBS./TON	GASEOUS FLUORIDE CONCENTR	ATION	0.474	MG./SCM	
PARTICULATE FLUORIDE CONCENTRATION 0.000111 GRAINS/SCF TOTAL FLUORIDE CONCENTRATION 0.727 MG./SCM TOTAL FLUORIDE CONCENTRATION 0.000318 GRAINS/SCF TOTAL FLUORIDE EMISSION 15.361 LBS./HR./LINE AVG. ALUMINUM PRODUCTION RATE 9.21 TON/HR./LINE TOTAL SECONDARY FLUORIDE EMITTED 1.668 LBS./TON TOTAL PRIMARY FLUORIDE EMITTED 0.458 LBS./TON	GASEOUS FLUORIDE CONCENTR	ATION	0.000207	GRAINS/SCF	
TOTAL FLUORIDE CONCENTRATION 0.727 MG./SCM TOTAL FLUORIDE CONCENTRATION 0.000318 GRAINS/SCF TOTAL FLUORIDE EMISSION 15.361 LBS./HR./LINE AVG. ALUMINUM PRODUCTION RATE 9.21 TON/HR./LINE TOTAL SECONDARY FLUORIDE EMITTED 1.668 LBS./TON TOTAL PRIMARY FLUORIDE EMITTED 0.458 LBS./TON	PARTICULATE FLUORIDE CONCE	NTRATION	0.253	MG./SCM	
TOTAL FLUORIDE CONCENTRATION  TOTAL FLUORIDE EMISSION  AVG. ALUMINUM PRODUCTION RATE  TOTAL SECONDARY FLUORIDE EMITTED  TOTAL PRIMARY FLUORIDE EMITTED  0.000318  GRAINS/SCF  LBS./HR./LINE  9.21  TON/HR./LINE  1.668  LBS./TON  0.458  LBS./TON	PARTICULATE FLUORIDE CONCE	NTRATION	0.000111	GRAINS/SCF	
TOTAL FLUORIDE EMISSION 15.361 LBS./HR./LINE AVG. ALUMINUM PRODUCTION RATE 9.21 TON/HR./LINE TOTAL SECONDARY FLUORIDE EMITTED 1.668 LBS./TON TOTAL PRIMARY FLUORIDE EMITTED 0.458 LBS./TON	TOTAL FLUORIDE CONCENTRATION	NC	0.727	MG./SCM	
AVG. ALUMINUM PRODUCTION RATE  TOTAL SECONDARY FLUORIDE EMITTED  TOTAL PRIMARY FLUORIDE EMITTED  9.21 TON/HR./LINE 1.668 LBS./TON  0.458 LBS./TON	TOTAL FLUORIDE CONCENTRATION	NC	0.000318	GRAINS/SCF	
TOTAL SECONDARY FLUORIDE EMITTED 1.668 LBS./TON TOTAL PRIMARY FLUORIDE EMITTED 0.458 LBS./TON	TOTAL FLUORIDE EMISSION			LBS./HR./LINE	<b>=</b>
TOTAL PRIMARY FLUORIDE EMITTED 0.458 LBS./TON	AVG. ALUMINUM PRODUCTION RA	ATE	9.21	TON/HR./LINE	<b>=</b>
	TOTAL SECONDARY FLUORIDE EI	MITTED	1.668	LBS./TON	
TOTAL PRIMARY AND SECONDARY FLUORIDE EMITTED 2.126 LBS./TON	TOTAL PRIMARY FLUORIDE EMIT	ΓED	0.458	LBS./TON	
	TOTAL PRIMARY AND SECONDAR	Y FLUORIDE EMITT	ED 2.126	LBS./TON	

### STACK SAMPLE RESULTS

#### METHOD 14 LINE 2

LINE 2					
Run Number 1		9/27/2019	EPA Method #	14	
METER VOLUME SQUARE ROOT OF DELTA P AVERAGE DELTA H METERED GAS TEMPERATURE STATIC PRESSURE IN STACK STACK TEMPERATURE		0.391 1.794 67.4 -0.64	CU. FT. SQ. ROOT IN. V IN. WATER DEG. F IN. WATER DEG. F	VATER	
BAROMETRIC PRESSURE PROBE TIP DIAMETER GAS METER CORRECTION FACTOR TOTAL SAMPLING TIME TOTAL WATER COLLECTED MOLECULAR WEIGHT SAMPLING DUCT AREA	R	0.3252 1.003 1395.0 332.5 28.9	IN. Hg INCHES  MINUTES GRAMS LB/LB-MOLE SQ. FT.		
GASEOUS FLUORIDE COLLECTED PARTICULATE FLUORIDE COLLECT AVG ALUMINUM PRODUCTION RAT	ΓED	0.01424	GRAMS GRAMS LBS./DAY/LINE		
MANIFOLD ANEMOMETER VELOCITY MANIFOLD THERMOCOUPLE TEMP AVERAGE ROOF EXIT VELOCITY AVERAGE ROOF EXIT TEMPERATU VOLUMETRIC FLOWRATE OUT ROO	PERATURE IRE	110.0 94.9 107.4	FT./MIN. DEG. F FT./MIN. DEG. F ACFM/LINE		
VOLUME GAS SAMPLED MOISTURE IN STACK GAS VELOCITY OF STACK GAS (ACTUAL VOLUMETRIC FLOWRATE IN DUCT PERCENT ISOKINETIC - TRAIN TO DE VOLUMETRIC FLOWRATE OUT ROOF PERCENT ISOKINETIC - MANIFOLD	DUCT OF	1574 98.70	% FT./MIN. SCFM % SCFM/LINE		
GASEOUS FLUORIDE CONCENTRA' GASEOUS FLUORIDE CONCENTRA' PARTICULATE FLUORIDE CONCEN' PARTICULATE FLUORIDE CONCEN' TOTAL FLUORIDE CONCENTRATION TOTAL FLUORIDE CONCENTRATION TOTAL FLUORIDE EMISSION AVG. ALUMINUM PRODUCTION RAT	TION TRATION TRATION N	0.000500 0.516 0.000225 1.661 0.000726 34.167			

3.612 LBS./TON

0.826 LBS./TON

4.438 LBS./TON

TOTAL SECONDARY FLUORIDE EMITTED

TOTAL PRIMARY FLUORIDE EMITTED

TOTAL FLUORIDE EMITTED

### STACK SAMPLE RESULTS

#### METHOD 14 LINE 2

Run Number 2	10/10/2019 -	10/11/2019	EPA Method #	5 & 14
METER VOLUME		877.538	CU. FT.	
SQUARE ROOT OF DELTA P		0.323		N. WATER
AVERAGE DELTA H		1.300		
METERED GAS TEMPERATURE		71.1		
STATIC PRESSURE IN STACK		-0.46		
STACK TEMPERATURE		104.2		
BAROMETRIC PRESSURE		29.64		
PROBE TIP DIAMETER		0.3306		
GAS METER CORRECTION FACT	OR	1.003		
TOTAL SAMPLING TIME		1395.0	MINUTES	
TOTAL WATER COLLECTED		339.2		
MOLECULAR WEIGHT		28.9		
SAMPLING DUCT AREA		1.25	SQ. FT.	_
TOTAL PARTICULATE COLLECTE	D	0.0422		
GASEOUS FLUORIDE COLLECTE		0.01591		
PARTICULATE FLUORIDE COLLE		0.00765		
AVG ALUMINUM PRODUCTION RA		451044		NE
MANIFOLD ANEMOMETER VELOC		134.9		
MANIFOLD THERMOCOUPLE TEN		120.4		
AVERAGE ROOF EXIT VELOCITY		106.1		
AVERAGE ROOF EXIT TEMPERAT		118.3		
VOLUMETRIC FLOWRATE OUT RO		6776395		
VOLUME GAS SAMPLED		869.204		
MOISTURE IN STACK GAS		1.804		
VELOCITY OF STACK GAS (ACTU	AL)	1135	1.500	
VOLUMETRIC FLOWRATE IN DUC		1290		
PERCENT ISOKINETIC - TRAIN TO		101.30	%	
VOLUMETRIC FLOWRATE OUT RO		6018518	SCFM/LINE	
PERCENT ISOKINETIC - MANIFOL	D TO ROOF	76.43	%	
SECONDARY PARTICULATE CON-	CENTRATION	0.0017	GRAMS/SCN	Λ
SECONDARY PARTICULATE CON-	CENTRATION	0.00075		
SECONDARY PARTICULATE EMIS		38.65	LBS./HR.	
SECONDARY PARTICULATE EMIS		4.11	LBS./TON	
PRIMARY PARTICULATE EMISSIO		3.68	LBS./TON	
PRIMARY AND SECONDARY PART			LBS./TON	
DRI DE SESSE SE SE SES LESS LES LES CONTRACTOR DE LA LESSE DE LES CONTRACTOR DE LA LESSE DE LA LESSE LES CONTRACTOR DE LA LESSE DE LA LESS				
GASEOUS FLUORIDE CONCENTR GASEOUS FLUORIDE CONCENTR		0.646	MG./SCM	_
PARTICULATE FLUORIDE CONCE		0.000282	GRAINS/SCF	
PARTICULATE FLUORIDE CONCE		0.311	MG./SCM	-
TOTAL FLUORIDE CONCENTRATION		0.000136	GRAINS/SCF	
TOTAL FLUORIDE CONCENTRATION TO THE TOTAL FLUORIDE CONCENTRATION T		0.957	MG./SCM GRAINS/SCF	
TOTAL FLUORIDE CONCENTRATION	ON	0.000418		
AVG. ALUMINUM PRODUCTION RA	\TE	21.578	LBS./HR./LIN	
TOTAL SECONDARY FLUORIDE E		9.40	TON/HR./LIN LBS./TON	
		2.296		
TOTAL PRIMARY AND SECONDAR		0.826	LBS./TON	
TOTAL PRIMARY AND SECONDAR	Y FLUORIDE EMITT	ED 3.122	LBS./TON	

## STACK SAMPLE RESULTS

#### METHOD 14 LINE 2

	LINE 2					
	Run Number 3	11/20/2019 -	11/21/2019	EPA Method # 5 & 14		
	METER VOLUME		861.204	CU. FT.		
	SQUARE ROOT OF DELTA P		0.307		R	
	AVERAGE DELTA H		1.297			
	METERED GAS TEMPERATURE		76.6			
	STATIC PRESSURE IN STACK		-0.44			
	STACK TEMPERATURE		85.8			
	BAROMETRIC PRESSURE		29.76			
	PROBE TIP DIAMETER		0.3339	and the same of The same		
	GAS METER CORRECTION FACTOR	₹	1.000			
	TOTAL SAMPLING TIME		1395.0	MINUTES		
	TOTAL WATER COLLECTED		72.8	GRAMS		
	MOLECULAR WEIGHT		28.8	LB/LB-MOLE		
	SAMPLING DUCT AREA		1.25	SQ. FT.		
	TOTAL PARTICULATE COLLECTED		0.0273	GRAMS		
	GASEOUS FLUORIDE COLLECTED		0.01114	GRAMS		
- 1	PARTICULATE FLUORIDE COLLECT		0.00624	GRAMS		
- 20	AVG ALUMINUM PRODUCTION RAT	E	414589	LBS./DAY/LINE		
	MANIFOLD ANEMOMETER VELOCIT	Υ	90.3	FT./MIN.		
	MANIFOLD THERMOCOUPLE TEMP	ERATURE	102.5	DEG. F		
	AVERAGE ROOF EXIT VELOCITY		94.4	FT./MIN.		
	AVERAGE ROOF EXIT TEMPERATU	RE	99.9	DEG. F		
	VOLUMETRIC FLOWRATE OUT ROC	)F	6029140	ACFM/LINE		
	VOLUME GAS SAMPLED		845.991	SCF		
- N	MOISTURE IN STACK GAS		0.403	%		
	VELOCITY OF STACK GAS (ACTUAL	)	1056	FT./MIN.		
	VOLUMETRIC FLOWRATE IN DUCT		1264	SCFM		
	PERCENT ISOKINETIC - TRAIN TO D		98.62	%		
	VOLUMETRIC FLOWRATE OUT ROC		5632395			
	PERCENT ISOKINETIC - MANIFOLD		106.49	%		
	SECONDARY PARTICULATE CONCE		0.0011	GRAMS/SCM		
	SECONDARY PARTICULATE CONCE		0.00050	GRAINS/SCF		
	SECONDARY PARTICULATE EMISSI		24.04	LBS./HR.		
	SECONDARY PARTICULATE EMISSI	ON	2.78	LBS./TON		
1	PRIMARY PARTICULATE EMISSION		3.68	LBS./TON		
1	PRIMARY AND SECONDARY PARTIC	ULATE EMITTE	D 6.46	LBS./TON		
(	GASEOUS FLUORIDE CONCENTRAT	ION	0.465	MG./SCM		
(	GASEOUS FLUORIDE CONCENTRAT	ION	0.000203	GRAINS/SCF		
1	PARTICULATE FLUORIDE CONCENT	RATION	0.260	MG./SCM		
F	PARTICULATE FLUORIDE CONCENT	RATION	0.000114	GRAINS/SCF		
-	TOTAL FLUORIDE CONCENTRATION	1	0.725	MG./SCM		
-	TOTAL FLUORIDE CONCENTRATION	1	0.000317	GRAINS/SCF		
	TOTAL FLUORIDE EMISSION		15.306	LBS./HR./LINE		
1	AVG. ALUMINUM PRODUCTION RAT	E	8.64	TON/HR./LINE		
1	TOTAL SECONDARY FLUORIDE EMI	TTED	1.772	LBS./TON		
1	TOTAL PRIMARY FLUORIDE EMITTE	D	0.826	LBS./TON		
1 -	TOTAL DRIMARY AND SECONDARY	ELLIODIDE EMI		LDO TON		

2.598

LBS./TON

TOTAL PRIMARY AND SECONDARY FLUORIDE EMITTED